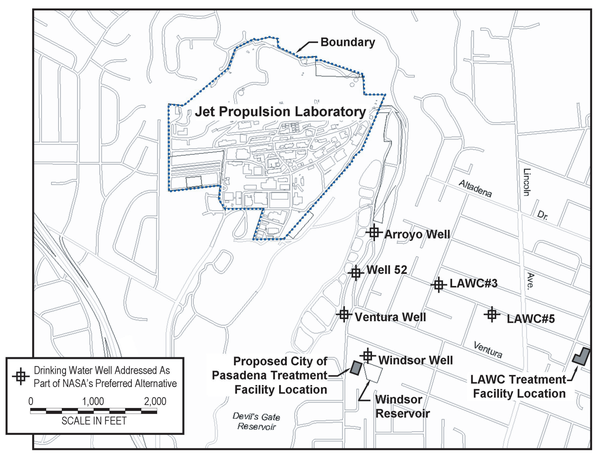
National Aeronautics and Space Administration

A NASA-Funded Groundwater Treatment Plant in Pasadena

Under an agreement with the City of Pasadena, NASA would fund removal of chemicals from a groundwater aquifer used by the City.

NASA Would

- Pay for the design and construction of a new treatment plant in Pasadena
- Provide funding and technical support to the City of Pasadena who would lease treatment equipment and operate the system



Groundwater extracted from four closed drinking water wells – Windsor Well, Well 52, Arroyo Well, and Ventura Well – would be treated at a facility located on vacant City property next to the Windsor Reservoir.

Benefits

Permanently removes perchlorate and VOCs from groundwater.

Prevents further movement of the chemicals in groundwater.

Uses system similar to NASA-funded Lincoln Avenue Water Company facility, which has successfully operated since July 2004.

Uses State-approved technology for removing perchlorate from drinking water.

How it Works

Removing Perchlorate
Ion Exchange System

- Groundwater is pumped from four closed wells to new treatment plant.
- Groundwater runs through tanks filled with tiny plastic beads, or resin. When perchlorate touches the beads, perchlorate is exchanged with chloride in the resin.
- The old resin is removed and properly disposed of at a licensed off-site facility and new resin is placed in tanks.

Removing Volatile Organic Compounds (VOCs)
Liquid-Phase Granular Activated Carbon System

- Water flows through tanks filled with very porous carbon particles that attract and accumulate VOCs.
- The old carbon beads are disposed of at a licensed off-site facility and new carbon is placed in tanks.

Next Steps

NASA would assist the City in its application for permits needed by the City to build and operate the plant.

A City of Pasadena Conditional Use Permit authorizing that the proposed land use and activities are compatible and consistent with those of the particular zoning district.

California Environmental Quality Act (CEQA) compliance requiring the City to identify significant environmental effects and avoid or mitigate those impacts, if feasible.

California Department of Health Services permit allowing the system to supply drinking water after treatment.

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